



HERITAGE-WTI, INC.  
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OHSAS 18001: 2007  
ISO 14001: 2004  
ISO 9001: 2008

July 31, 2012  
VIA UPS and OEPA AIR SERVICES

Mr. George Czerniak, Chief (UPS)  
U.S. EPA Region V  
Air Enforcement and Compliance Assurance  
Branch  
Mail Code AE-17J  
77 West Jackson  
Chicago, IL 60604

Mr. Eric Bewley (Air Services)  
OEPA-DAPC-NEDO  
2110 E. Aurora Road  
Twinsburg, OH 44087



RE: HERITAGE-WTI, INC.  
SEMI-ANNUAL STARTUP, SHUTDOWN, AND MALFUNCTION REPORT &  
SEMI-ANNUAL EXCESS EMISSIONS AND CMS REPORT

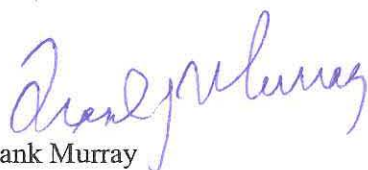
Greetings:

Please find enclosed a written report entitled *Semi-Annual Startup, Shutdown, and Malfunction Report* and *Semi-Annual Excess Emission and CMS Report* for Heritage-WTI, Inc. These reports are required by 40 CFR 63.10 and cover the time period of January 1, 2012 through June 30, 2012.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are certain penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Thank you and if you have any questions or comments, please call me at the above number.

Sincerely,

  
Frank Murray  
General Manager  
Heritage-WTI, Inc.

EPA-R5AECAB-AE2010-149



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**SEMI-ANNUAL STARTUP, SHUTDOWN, AND MALFUNCTION REPORT  
&  
SEMI-ANNUAL EXCESS EMISSION AND CMS REPORT**

**for**

**Heritage-WTI, Inc.**

**July 31, 2012**

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EPA-R5AECAB-AE2010-150

**Section I – General Information**

**A. Facility Information**

Facility ID:	02-15-02-0233
Responsible Official's Name / Title:	Frank Murray General Manager
Street Address:	1250 Saint George Street
City:	East Liverpool
State:	Ohio
Zip Code:	43920
Facility Name:	Heritage-WTI, Inc.
Facility Local Contact Name:	Vincent Waggle Environmental Engineer

**B. Relevant standard(s) or other requirement(s) that is/are the basis for this report:**

63.10(d)(5)(i) – Periodic Startup, Shutdown, and Malfunction Reports

**C. Are you requesting a waiver of recordkeeping and/or reporting requirements under the applicable relevant standard(s) in conjunction with this report?**

☐ Yes      ☒ No

If you answered yes, you must submit the application for a waiver of recordkeeping and/or reporting requirements together with this report. The application for waiver should include whatever information you consider useful to convince the Administrator that a waiver of recordkeeping or recording is warranted. (63.10(f)(3))

**Section II – Certification**

Based upon information and belief formed after a reasonable inquiry, I as a responsible official of the above-mentioned facility, certify the information contained in this report is accurate and true to the best of my knowledge.

**Frank Murray, General Manager**

Signature: \_\_\_\_\_

*Frank Murray*

Date: \_\_\_\_\_

*7/13/2012*

**Section III – Startup, Shutdown, and Malfunction Reports**

A. Startup, Shutdown, or Malfunction Actions

All actions taken by Heritage-WTI, Inc. during startup, shutdown, or malfunction events during the reporting period of **January 1, 2012 through June 30, 2012** were consistent with the procedures specified in the facility's Startup, Shutdown, and Malfunction Plan.

B. Malfunctions

Please find in the table below a list of each malfunction, the durations, and a brief description of the type of malfunction that occurred during the reporting period of **January 1, 2012 through June 30, 2012**.

**See next page for completed table**

HERITAGE\_WTI, INC.  
SEMI-ANNUAL SSMP, EE,  
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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
ESP Inlet Temperature	1/4/2012 19:45	1/4/2012 19:53	7.97	Malfunction - N3 Pump	Atomizer feed pump malfunctioned causing low flow to atomizers.	Restarted N3 pump. Restarted unit.
THC	1/14/2012 11:01	1/14/2012 12:00	59.00	Malfunction - Lance Purge	Slurry lance purged on lance start causing event.	Cleared line. Restarted unit.
SCC Pressure Using Seals	1/31/2012 3:04	1/31/2012 3:04	0.08	Malfunction - Clinker Fell	Large ash fall caused loss of fans and AWFCO	Restarted fans and unit.
SCC Pressure Using Seals	1/31/2012 3:04	1/31/2012 3:04	0.20	Malfunction - Clinker Fell	Large ash fall caused loss of fans and AWFCO	Restarted fans and unit.
Kiln Temperature	1/31/2012 3:17	1/31/2012 4:38	81.02	Malfunction - Prior AWFCO	Large ash fall caused loss of fans and AWFCO	Restarted unit and regained temperature.
SCC Temperature	1/31/2012 3:18	1/31/2012 4:42	83.97	Malfunction - Prior AWFCO	Large ash fall caused loss of fans and AWFCO	Restarted unit and regained temperature.
Scrubber ECIS Flow	2/8/2012 9:30	2/8/2012 9:31	1.02	Malfunction - ECIS Blower Motor	Lost belt on ECIS blower motor caused carbon flow loss.	Replaced belts. Restarted unit.
Scrubber ECIS Flow	2/8/2012 9:34	2/8/2012 9:36	1.98	Malfunction - ECIS Blower Motor	Lost belt on ECIS blower motor caused carbon flow loss.	Replaced belts. Restarted unit.
Scrubber ECIS Flow	2/8/2012 9:42	2/8/2012 10:11	29.00	Malfunction - ECIS Blower Motor	Lost belt on ECIS blower motor caused carbon flow loss.	Replaced belts. Restarted unit.

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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
SCC Pressure Using Seals	2/8/2012 15:24	2/8/2012 15:24	0.40	Malfunction - Instrument	Instrument malfunction caused false pressure reading.	Re-calibrated transmitter. Maintained draft.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
THC	2/19/2012 19:27	2/19/2012 19:48	21.03	Malfunction - Lance purge	Lance purge during maintenance cause THC spike.	Cleared lance. Restarted unit.
SCC Pressure Using Seals	2/27/2012 14:25	2/27/2012 14:26	0.68	Malfunction - Instrument	Quench thermocouple malfunction caused ID fan shutdown.	Repaired thermocouple. WO#120943. Restarted unit.
THC	2/27/2012 14:32	2/27/2012 15:33	61.02	Malfunction - Instrument	Quench thermocouple malfunction caused ID fan shutdown.	Repaired thermocouple. WO#120943. Restarted unit.
SCC Temperature	2/28/2012 6:24	2/28/2012 7:29	65.00	Malfunction - Instrument	Loss of medium pressure steam controller caused lance shutdown and temp loss.	Replaced controller. WO# 120973. Restarted unit.
Kiln Temperature	2/28/2012 6:44	2/28/2012 7:26	42.00	Malfunction - Instrument	Loss of medium pressure steam controller caused lance shutdown and temp loss.	Replaced controller. WO# 120973. Restarted unit.
Total PB Flow	3/2/2012 10:08	3/2/2012 12:23	135.23	Malfunction - Broken Scrubber Line	Broken 2nd stage piping caused flow loss and shut down for maintenance.	Replaced piping. Restarted unit.
RJ Blowdown Flow	3/2/2012 11:41	3/2/2012 12:23	42.20	Malfunction - Broken Scrubber Line	Broken 2nd stage piping caused flow loss and shut down for maintenance.	Replaced piping. Restarted unit.
SCC Pressure Using Seals	3/5/2012 10:25	3/5/2012 10:25	0.03	Malfunction - Clinker Fell	Ash fall from SCC into quench caused seal pressure loss	Maintained draft using fan damper.

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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
SCC Pressure Using Seals	3/5/2012 10:26	3/5/2012 10:26	0.03	Malfunction - Clinker Fell	Ash fall from SCC into quench caused seal pressure loss	Maintained draft using fan damper.
THC	3/11/2012 4:09	3/11/2012 5:09	59.97	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
Total PB Flow	3/15/2012 8:32	3/15/2012 11:04	151.60	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
SDA ECIS Pressure	3/15/2012 8:36	3/15/2012 11:04	147.62	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
RJ Blowdown Flow	3/15/2012 9:18	3/15/2012 9:45	26.97	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
Scrubber ECIS Flow	3/15/2012 9:25	3/15/2012 11:04	98.72	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
Scrubber ECIS Pressure	3/15/2012 9:54	3/15/2012 11:04	69.72	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
SDA ECIS Flow	3/15/2012 10:11	3/15/2012 11:04	52.67	Malfunction - ECIS Maintenance	ECIS blower motor failed. Other maintenance performed during shutdown.	Completed repairs. Restarted unit.
THC	3/22/2012 2:04	3/22/2012 3:02	57.97	Malfunction - Lance Purge	Bad seals on sludge pump cause lance purge and THC.	WO#121325. Rebuilt pump. Started unit.

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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
SDA ECIS Pressure	3/23/2012 18:16	3/23/2012 18:34	18.10	Malfunction - Broken ECIS Belts	Lost carbon pressure due to broken blower belt.	WO#121342. Replaced belt. Restarted unit.
RJ DP	3/24/2012 2:36	3/24/2012 3:03	27.00	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
RJ DP	3/24/2012 3:50	3/24/2012 5:20	90.45	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
SCC Temperature	3/24/2012 4:08	3/24/2012 5:20	72.35	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
Kiln Temperature	3/24/2012 4:19	3/24/2012 5:22	63.28	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
THC	3/24/2012 4:32	3/24/2012 5:21	48.57	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
RJ Blowdown Flow	3/24/2012 4:36	3/24/2012 5:20	44.43	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
RJ Flow	3/24/2012 4:40	3/24/2012 5:20	40.47	Malfunction - Ring Jets	Ring jet malfunction causing immediate shutdown and OPL events.	Repaired ring jets. Restarted unit.
SDA ECIS Flow	3/28/2012 0:31	3/28/2012 0:42	11.05	Malfunction - ECIS Belt Broke	The belt on the ECIS blower broke causing flow loss.	Replaced belt. Restarted unit.



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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Action
SCC Pressure Using Seals	4/6/2012 7:35	4/6/2012 7:35	0.08	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
Kiln Temperature	4/6/2012 8:12	4/6/2012 10:28	136.33	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
SCC Temperature	4/6/2012 8:19	4/6/2012 10:28	129.40	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
RJ Blowdown Flow	4/6/2012 8:33	4/6/2012 10:28	115.43	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
THC	4/6/2012 8:37	4/6/2012 10:28	111.62	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
SCC Pressure Using Seals	4/6/2012 9:09	4/6/2012 9:11	2.55	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
RJ DP	4/6/2012 9:15	4/6/2012 10:28	73.48	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
RJ Flow	4/6/2012 9:16	4/6/2012 10:28	72.48	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
SDA ECIS Pressure	4/6/2012 10:10	4/6/2012 10:28	18.58	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.

HERITAGE WTL, INC.  
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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
Scrubber ECIS Pressure	4/6/2012 10:23	4/6/2012 10:29	5.62	Malfunction - Ring Jet Pump	Check valve failure on RJ pump caused unit shutdown.	Replaced check valve. Repaired ring jets.
SCC Pressure Using Seals	4/12/2012 4:14	4/12/2012 4:14	0.05	Malfunction - Ring Jet Header	Broken slurry header caused water in ID Fan and shutdown.	Repaired header. Restarted unit.
RJ DP	4/12/2012 4:37	4/12/2012 7:01	143.93	Malfunction - Ring Jet Header	Broken slurry header caused water in ID Fan and shutdown.	Repaired header. Restarted unit.
RJ Blowdown Flow	4/12/2012 5:04	4/12/2012 6:49	105.00	Malfunction - Ring Jet Header	Broken slurry header caused water in ID Fan and shutdown.	Repaired header. Restarted unit.
RJ Flow	4/12/2012 5:11	4/12/2012 7:01	109.97	Malfunction - Ring Jet Header	Broken slurry header caused water in ID Fan and shutdown.	Repaired header. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
THC	4/16/2012 10:13	4/16/2012 11:11	58.03	Malfunction - Front Wall Burner	Malfunction of gas burner caused poor combustion.	Adjusted air damper. Restarted unit.
THC	4/20/2012 8:59	4/20/2012 9:34	35.05	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
SCC Pressure Using Seals	4/20/2012 10:44	4/20/2012 10:44	0.12	Malfunction - Instrument	Kiln seal transmitter giving bad data. OPL exceeded during maintenance.	Transmitter repaired. Draft maintained.
SCC Pressure Using Seals	4/20/2012 10:45	4/20/2012 10:45	0.03	Malfunction - Instrument	Kiln seal transmitter giving bad data. OPL exceeded during maintenance.	Transmitter repaired. Draft maintained.

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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
THC	4/28/2012 10:42	4/28/2012 11:05	22.98	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
THC	4/29/2012 8:39	4/29/2012 9:39	60.00	Malfunction - Customer Packaging Error	Customer shipped off spec waste that could not be inspected.	Contacted customer. Restarted unit.
SDA ECIS Flow	5/5/2012 6:56	5/5/2012 9:48	171.97	Malfunction - Data Controller	Bailey DCS lost communication with controller cabinet.	Reset controller. Restarted unit.
Scrubber ECIS Flow	5/5/2012 7:01	5/5/2012 7:50	49.00	Malfunction - Data Controller	Bailey DCS lost communication with controller cabinet.	Reset controller. Restarted unit.
Scrubber ECIS Flow	5/5/2012 8:41	5/5/2012 9:48	67.03	Malfunction - Data Controller	Bailey DCS lost communication with controller cabinet.	Reset controller. Restarted unit.
THC	5/5/2012 20:13	5/5/2012 21:12	59.00	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
SCC Pressure Using Seals	5/6/2012 0:38	5/6/2012 0:41	3.42	Malfunction - ID Fan Stop	ID Fan shutdown due to glitch in DCS controller.	Restarted controller and unit. Check DCS.
RJ DP	5/6/2012 0:45	5/6/2012 1:44	59.00	Malfunction - ID Fan Stop	ID Fan shutdown due to glitch in DCS controller.	Restarted controller and unit. Check DCS.
RJ DP	5/9/2012 12:20	5/9/2012 13:22	62.00	Malfunction - Ring Jets	Ring jet failure caused loss of flow to 3rd stage.	Unit shutdown. Repaired ring jets.

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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
RJ DP	5/9/2012 13:56	5/9/2012 14:12	16.02	Malfunction - Ring Jets	Ring jet failure caused loss of flow to 3rd stage.	Unit shutdown. Repaired ring jets.
THC	5/11/2012 13:14	5/11/2012 14:15	61.02	Malfunction - Lance Purge	Unexpected purging of the direct drum lance caused poor combustion.	Cleared lance. Restarted unit.
THC	5/12/2012 14:39	5/12/2012 15:39	59.98	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
SDA ECIS Flow	5/14/2012 17:31	5/14/2012 17:36	5.00	Malfunction - Carbon feed screw	Bag tie caught in carbon feed screw caused loss of flow.	Cleared screw. Restarted unit.
THC	5/15/2012 18:51	5/15/2012 19:26	35.00	Malfunction - Lance Purge	Sludge lance purged unexpectedly causing poor combustion.	Restarted unit. Cleared lance.
Scrubber ECIS Flow	5/23/2012 2:50	5/23/2012 2:55	5.05	Malfunction - ECIS Belt Broke	Belt on scrubber ECIS broke causing flow loss.	Replaced belt. Restarted unit.
SCC Pressure Using Seals	5/30/2012 23:07	5/30/2012 23:09	2.28	Malfunction - Instrument	Bad level transmitter on deaerator caused abrupt unit shutdown.	Repaired transmitter. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
RJ DP	5/30/2012 23:14	5/31/2012 0:18	63.98	Malfunction - Instrument	Bad level transmitter on deaerator caused abrupt unit shutdown.	Repaired transmitter. Restarted unit.
SCC Temperature	5/30/2012 23:35	5/31/2012 0:19	44.00	Malfunction - Instrument	Bad level transmitter on deaerator caused abrupt unit shutdown.	Repaired transmitter. Restarted unit.

HERITAGE\_WTI, INC.  
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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
RJ Flow	5/30/2012 23:37	5/30/2012 23:41	4.02	Malfunction - Instrument	Bad level transmitter on deaerator caused abrupt unit shutdown.	Repaired transmitter. Restarted unit.
SCC Pressure Using Seals	6/4/2012 19:05	6/4/2012 19:09	4.55	Malfunction - Power Failure	Brief loss of power to facility caused unit shutdown.	Power restored. Unit restarted.
RJ DP	6/4/2012 19:09	6/5/2012 8:52	823.42	Malfunction - Power Failure	Brief loss of power to facility caused unit shutdown.	Power restored. Unit restarted.
SCC Temperature	6/4/2012 19:44	6/4/2012 19:46	2.00	Malfunction - Power Failure	Brief loss of power to facility caused unit shutdown.	Power restored. Unit restarted.
SCC Temperature	6/4/2012 19:49	6/4/2012 19:53	4.00	Malfunction - Power Failure	Brief loss of power to facility caused unit shutdown.	Power restored. Unit restarted.
THC	6/5/2012 5:04	6/5/2012 5:15	10.95	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
RJ DP	6/7/2012 15:12	6/7/2012 16:23	70.97	Malfunction - Ring Jet malfunction	Malfunction of ring jets caused OPL events.	Replaced 5 ring jets due to damage. Restarted unit.
RJ Flow	6/7/2012 15:47	6/7/2012 16:06	19.03	Malfunction - Ring Jet malfunction	Malfunction of ring jets caused OPL events.	Replaced 5 ring jets due to damage. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60 block period and have been treated in accordance with 63.1206(c)(2)(v)(3)(ii). It has been determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.						
THC	6/19/2012 8:54	6/19/2012 9:13	18.98	Malfunction - Instrument	Computer program froze causing delay in data update to control room.	Restarted computer. Restarted unit.

HERITAGE\_WTI, INC.  
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Name	Start Time	End Time	Duration (Min)	Cause (report)	Cause Description	Corrective Actions
THC	6/20/2012 10:57	6/20/2012 10:59	2.03	Malfunction - Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC.	Reviewed waste feeds. Restarted unit.
RJ DP	6/27/2012 23:27	6/28/2012 0:02	35.00	Malfunction - Instrument	Instrument malfunction cause lance over fire resulting in boiler over pressure.	Repaired flow transmitter. Restarted unit.

C. Startup, Shutdown, or Malfunction Plan Revision History

DATE	Revision Number	Comment
9/30/2003	0	Initial Plan
2/27/2004	1	ESP OPLs added. Malfunction list updated.
6/23/2005	2	Revised section on operating modes.
10/27/2006	3	RCRA Permit modifications. Malfunction list updated.
3/15/2007	4	Malfunction list updated and comments added addressing instances beyond the operator's control.
6/6/2007	5	Malfunction list updated and further comments added addressing instances beyond the operator's control.
10/16/2007	6	Corrected minor deficiencies noted by OEPA.
9/1/2008	7	Revised to reflect facility name change
6/12/2009	8	This revision included, in Section 1.6.3.1, more detailed descriptions of the most common malfunction events that occur at the facility. It also included a description of data collection procedures during times when residence time expires while an exceedance event is taking place in Section 1.6.3.
12/9/2010	9	Revision created to reflect OPL changes resulting from the MACT CPT completed in 2010. Additionally, new malfunctions were added to Table 2-2.
5/1/2011	10	Revision incorporated a discussion of the exceedance investigation process and procedures. Table 2-2 was also slightly revised to include addition malfunctions.
7/5/2012	11	Revision 11 (7/5/2012) created to improve language surrounding the reporting and documentation during startup and shutdown events.

## SEMI-ANNUAL EXCESS EMISSION AND CMS REPORT

### Section I – General Information

#### A. Facility Information

Facility ID:	02-15-0233
Responsible Official's Name / Title:	Frank Murray / General Manager
Street Address:	1250 Saint George Street
City:	East Liverpool
State:	Ohio
Zip Code:	43920
Facility Name:	Heritage-WTI, Inc.
Facility Local Contact Name:	Local contact is the same information as given above.

#### B. Relevant standard(s) or other requirement(s) that is/are the basis for this report:

63.10(e)(3) – Excess Emissions and Continuous Monitoring System Performance Report

#### C. Are you requesting a waiver of recordkeeping and/or reporting requirements under the applicable relevant standard(s) in conjunction with this report?

☐ Yes ☒ No

If you answered yes, you must submit the application for a waiver of recordkeeping and/or reporting requirements together with this report. The application for waiver should include whatever information you consider useful to convince the Administrator that a waiver of recordkeeping or recording is warranted. (63.10(f)(3))

#### D. Check the box that corresponds to the reports you are submitting:

- ☐ Summary Report Only (Complete Sections II and IV)
- ☒ Excess Emission and CMS Performance Report and Summary Report (Complete Sections II, III, and IV).

### Section II – Certification

Based upon information and belief formed after a reasonable inquiry, I as a responsible official of the above-mentioned facility, certify the information contained in this report is accurate and true to the best of my knowledge.

Frank Murray, General Manager

EPA-R5AECAB-AE2010-164

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**Section III – Excess Emissions and CMS Performance Report**

A. Excess Emissions

1. Have any excess emissions or exceedances of a parameter occurred during this reporting period?

☒ Yes ☐ No

2. If you answered yes, complete the following table for each period of excess emissions and/or parameter monitoring exceedances, as defined in the relevant standard(s), that occurred during periods other than startups, shutdowns, and/or malfunctions of your affected source. (63.10(c)(7)-(11))

**See next page for completed table.**

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Name	Start Time	End Time	Duration	Cause (report)	Corrective Actions
THC	1/1/2012 13:12	1/1/2012 14:11	59.02	Operator Error - Feed Prep	Reduced charge size. Restarted unit.
THC	1/4/2012 22:09	1/4/2012 23:09	60.00	Operator Error - Feed Prep	Reduced charge size. Restarted unit.
THC	1/25/2012 12:08	1/25/2012 13:08	60.02	Operator Error - Feed Prep	Reduced charge size. Restarted unit.
RJ Blowdown Flow	3/25/2012 12:05	3/25/2012 12:07	1.98	Operator Error - Poor Operation	Re-established OPL. Restarted unit.
THC	3/25/2012 13:22	3/25/2012 14:06	43.98	Operator Error - Combustion Air	Increased air flow. Restarted unit.
THC	4/2/2012 17:05	4/2/2012 17:08	2.97	Operator Error - Line Purge	Restarted unit.
THC	4/17/2012 16:42	4/17/2012 17:42	59.97	Operator Error - Feed Mix	Reduced waste feeds. Restarted unit.
THC	4/18/2012 0:46	4/18/2012 1:46	60.02	Operator Error - Feed Prep	Removed waste from mix. Restarted unit.
THC	4/18/2012 2:31	4/18/2012 3:36	64.98	Operator Error - Feed Prep	Removed waste from mix. Restarted unit.
THC	4/18/2012 7:39	4/18/2012 8:40	60.98	Operator Error - Feed Prep	Removed waste from mix. Restarted unit.
THC	4/18/2012 9:02	4/18/2012 9:59	56.98	Operator Error - Feed Prep	Removed waste from mix. Restarted unit.
RJ DP	4/18/2012 9:41	4/18/2012 11:19	97.73	Operator Error - Poor Operation	Regained OPL. Restarted unit.
THC	4/18/2012 16:41	4/18/2012 17:40	59.00	Operator Error - Feed Prep	Removed waste from mix. Restarted unit.
THC	4/30/2012 7:42	4/30/2012 8:43	61.00	Operator Error - Feed Size	Removed waste stream from mix.
THC	4/30/2012 8:51	4/30/2012 9:53	61.97	Operator Error - Feed Size	Removed waste stream from mix.
THC	5/3/2012 19:31	5/3/2012 20:00	28.98	Operator Error - Feed Size	Restarted unit. Reduced charge size.
THC	5/11/2012 20:04	5/11/2012 20:58	54.00	Operator Error - Feed Size	Restarted unit. Reduced charge size.
THC	5/13/2012 21:40	5/13/2012 22:40	59.98	Operator Error - Feed Size	Restarted unit. Reduced charge size.
THC	5/14/2012 19:37	5/14/2012 20:37	59.97	Operator Error - Lance Feed	Restarted unit. Reduced flow.

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Name	Start time	End time	Duration	Cause (report)	Corrective Actions
THC	5/16/2012 10:22	5/16/2012 11:12	49.98	Operator Error - Feed Mix	Restarted unit. Reduced feeds.
THC	5/24/2012 7:12	5/24/2012 8:11	58.98	Operator Error - Feed Size	Restarted unit. Reduced charge size.
THC	5/29/2012 16:50	5/29/2012 17:47	56.92	Operator Error - Feed Size	Restarted unit. Reduced charge size.
THC	6/1/2012 3:17	6/1/2012 4:10	52.95	Operator Error - Waste Inspection	Restarted unit. Program logic changed.
THC	6/19/2012 10:27	6/19/2012 11:26	58.98	Operator Error - Data Quality	Restart unit. Correct data problem.
SDA ECIS Flow	6/21/2012 18:05	6/21/2012 18:23	18.15	Operator Error - Poor Operation	Added carbon to hopper. Restarted unit.
THC	6/22/2012 19:16	6/22/2012 19:32	16.00	Operator Error - Feed Prep	Reduced charge size. Restarted unit.
THC	6/26/2012 23:12	6/27/2012 0:13	60.98	Operator Error - Feed Prep	Reduced charge size. Restarted unit.

**B. CMS Performance**

1. Has a CMS been inoperative (except for zero/low-level and high-level checks), out of control (as defined in 63.8(c)(7)(i)), repaired, or adjusted during this reporting period? ☒ Yes ☐ No

2. If you answered yes, complete the following table for each period a CMS was out of control, repaired, or adjusted: (63.10(c)(5)-(6), (10)-(12); 63.8(c)(8).

CMS Type	Mfg.	Process ID	Start Date	Completion Date	Nature & Cause of Malfunction (if any)	Corrective Actions Taken or Preventative Measures Adopted	Nature of Repairs or Adjustments Made to Inoperative or OOC CMS
THC	CAI	Stack monitor #2	4/13/2012	4/14/2012	Instrument Drift	Manual Calibration	Manual Calibration

3. Indicate the total process operating time during the reporting period. (63.10(c)(13))

Total process operating time (days):

Days in reporting period: 182

Facility total process operating time (days): 173.86

Total days on waste: 169.37

Total days on fuels: 4.49

**Section IV – Summary Report – Gaseous and Opacity Excess Emissions and CMS Performance**

**A. Report Date and Submittal Reporting Period**

Indicate the reporting period covered by this submittal and the date of this summary report. (63.10(e)(3)(vi))

Reporting Period Beginning date	Reporting Period ending date	Summary Report Date
January 1, 2012	June 30, 2012	July 31, 2012

## B. Process Description and Monitoring Equipment Information

Complete the following process description and monitoring equipment information table for each affected source process unit:

Total operating time of affected source during the reporting period (days)
243,896 minutes of unit burning/ retaining hazardous waste; 6,461 minutes on virgin fuels.

Process unit name
Rotary Kiln Incineration System

Process unit description
Rotary kiln and ancillary equipment for combustion of hazardous wastes.

Emission and/or operating parameter limitations specified in the relevant standards
See Table 1 and 2 below.

**TABLE 1 – APPLICABLE EMISSIONS STANDARDS**

Emissions Parameter	Limit	Citation
Destruction and Removal Efficiency (DRE)	≥99.99%	40 CFR 63.1203(c)(1)
PCDDs/PCDFs	≤0.20 ng/dscm TEQ basis	40 CFR 63.1219(a)(1)(i)
HCl/Cl <sub>2</sub>	≤ 32 ppmv dry as HCl	40 CFR 63.1219(a)(6)
Mercury	≤ 130 µg/dscm	40 CFR 63.1219(a)(2)
Semi volatile Metals (SVM)	≤ 230 µg/dscm	40 CFR 63.1219(a)(3)
Low Volatile Metals (LVM)	≤ 92 µg/dscm	40 CFR 63.1219(a)(4)
Totals Hydrocarbons	≤ 10 ppmv	40 CFR 63.1219(a)(5)(ii)
Particulate Matter (PM)	≤ 0.013 gr/dscf or 34 mg/dscm	40 CFR 63.1219(a)(7)

**TABLE 2 – OPERATING PARAMETERS**

On November 18, 2010, Heritage-WTI submitted a Notice of Compliance to EPA that included the operating parameters below. These operating parameters were established through Comprehensive Performance Testing completed on September 16, 2010.

Process Parameter (Tag ID)	Units	Avg. Period	Basis	Limit 10/1/2008 DOC
Minimum Feed Lance Atomization Pressure <sup>1</sup>	Psig	Instant.	Mfg. Rec.	30
Maximum SCC Pressure (PT-4307 & PT-4308)	In. w.c.	Reference September 4, 2003 letter from US EPA Region 5 concerning this requirement.		
Maximum Temperature at ESP Inlet (TI-6002A/B)	°F	1-hr	CPT	424
Maximum Pumpable Waste Feed Rate (WQI-9000T)	Lb/hr	1-hr	CPT	29,926
Maximum Total Waste Feed Rate (WQI-9000F)	Lb/hr	1-hr	CPT	35,069
Minimum Kiln Temperature (TI-4300A/B)	°F	1-hr	CPT	1,718
Minimum SCC Temperature (TI-4310A/B)	°F	1-hr	CPT	1,747
Maximum Process Gas Flow rate (FI-7510A/B)	Scfm	1-hr	CPT	67,505
Minimum Loc. 1 Carbon Feed Rate (WI-7003)	Lb/hr	1-hr	CPT	
Minimum Loc. 2 Carbon Feed Rate (WI-7002)	Lb/hr	1-hr	CPT	
Minimum Loc. 1 Carbon Feed Pressure (PI-5732)	Psig	1-hr	CPT	3.0
Minimum Loc. 2 Carbon Feed Pressure (PI-7132)	Psig	1-hr	CPT	3.0
Maximum Ash Feed Rate (WQI-9000AH)	Lb/hr	12-hr	CPT	10,333
Minimum Ring Jet Pressure Drop (DPI-7401)	in. w.c.	1-hr	CPT	28.0
Minimum Scrubber (1 <sup>st</sup> and 2 <sup>nd</sup> Packed Bed, combined) Liquid Flow Rate (FQI-7201)	gpm	1-hr	CPT	1,287
Minimum Scrubber (Ring Jet) Liquid Flow Rate (FI-7404A/B)	gpm	1-hr	CPT	446

<sup>1</sup> Each liquid lance has a pressure switch. When the pressure drops below 30 psig on any lance the feed from that lance will be automatically cutoff. Tag Ids : PSL-3113 (High BTU), PSL-3123 (Organic), PSL-3143 (Aqueous), PSL-3133 (Sludge), PSL-3153 (Slurry), and PSL-3100A/B (Sludge 2).

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Process Parameter (Tag ID)	Units	Avg. Period	Basis	Limit 10/1/2008 DOC
Minimum Scrubber (Ring Jet) Blowdown (FI-7403)	gpm	1-hr	CPT	19.5
Minimum Scrubber (Ring Jet) Tank Level (LIC-7401)	feet	1-hr	CPT	1.7
ESP Parameters	The ESP is operating with all fields available with set points of 45,000 volts and 90 sparks per minute, each field; and minimum current of 100 milliamps, each field (see US EPA letters dated Dec. 10 and Dec. 27, 2003).			
Minimum Scrubber (1 <sup>st</sup> and 2 <sup>nd</sup> Packed Bed, combined) Feed Pressure	in. w.c.	1-hr	Mfg. Rec.	Not Req'd.
Minimum Scrubber (1 <sup>st</sup> and 2 <sup>nd</sup> Packed Bed) Pressure Drop	in. w.c.	1-hr	Mfg. Rec.	1.3
Minimum Scrubber (3 <sup>rd</sup> Stage) Liquid pH (AI-7307A/B)	pH units	1-hr	Prior Testing	7.6
Maximum Total Chlorine Feed Rate (WQI-9000CL)	Lb/hr	12-hr	Prior Testing	2,032
Maximum Total Semi volatile Metals Feed Rate (WQI-9000SV)	Lb/hr	12-hr	Prior Testing	83.2
Maximum Total Low Volatile Metals Feed Rate (WQI-9000LV)	Lb/hr	12-hr	Prior Testing	400
Maximum Total Pumpable Low Volatile Metals Feed Rate (WQI-9000PLV)	Lb/hr	12-hr	Prior Testing	400
Maximum Total Mercury Feed Rate (WQI-9000M)	lb/hr	12-hr	Prior Testing	0.14
Stack THC (AI-7850)	ppmv	1-hr	Regulatory Requirement	<10

### Monitoring Equipment Information

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Power -ESP Field #1	Environmental Elements Controller	0 – 500 ma	EI-6700	7/2/2012	N/A
Power -ESP Field #2	Environmental Elements Controller	0 – 500 ma	EI-6710	7/2/2012	N/A
Power -ESP Field #3	Environmental Elements Controller	0 – 750 ma	EI-6720	7/2/2012	N/A
Scrubber Second Packed Bed Liquid PH	Electro-Chemical Devices	0 – 14 pH units	AT-7307A	Performed Weekly	± 5% of range
Scrubber Second Packed Bed Liquid PH	Electro-Chemical Devices	0 – 14 pH units	AT-7307B	Performed Weekly	± 5% of range
Scrubber 2nd Packed Bed Differential Pressure	Rosemount Transmitter /Pressure transducer	0 – 8 in w.c.	DPT-7307	3/26/2012	± 2% of range
Combustion Oxygen Injection Flow	Rosemount Differential Pressure Transmitter	0 – 250 in. w.c.	FT-1530	6/6/2012	± 2% of range
Pumpable Feed Rate High BTU Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3110	2/17/2012	± 10% of range
Pumpable Feed Rate Organic Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3120	7/1/2012	± 10% of range
Pumpable Feed Rate Sludge Lance	Positive displacement pump (calculation)	0 – 15,000 lb/hr	FT-3130	Not Applicable (calculation)	N/A
Pumpable Feed Rate Aqueous Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3140	7/1/2012	± 10% of range



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Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Pumpable Feed Rate Slurry Lance	Positive displacement pump (calculation)	0 – 15,000 lb/hr	FT-3150	Not Applicable (calculation) N/A	
Scrubber First Packed bed flow rate	PolySonics Doppler Flow	0 – 1,500 gpm	FT-7204A	7/1/2012	± 10% of range
Scrubber First Packed bed flow rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7204B	7/1/2012	± 10% of range
Scrubber Second Packed bed flow rate	PolySonics Doppler Flow	0 – 1,500 gpm	FT-7304A	7/1/2012	± 10% of range
Scrubber Second Packed bed flow rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7304B	7/1/2012	± 10% of range
Ring Jet Blow Down	Panametrics Ultrasonic Flow	0 – 500 gpm	FT-7403A	2/17/2012	± 10% of range
Ring Jet Blow Down	Panametrics Ultrasonic Flow	0 – 500 gpm	FT-7403B	2/17/2012	± 10% of range
Scrubber Ring Jet Liquid Flow Rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7404A	7/1/2012	± 10% of range
Scrubber Ring Jet Liquid Flow Rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7404B	7/1/2012	± 10% of range
Ring Jet Vessel Level	Rosemount Transmitter/ Pressure	0 – 5 feet	LT-7401A	4/25/2012	± 2% of range
Ring Jet Vessel Level	Rosemount Transmitter/ Pressure	0 – 5 feet	LT-7401B	4/25/2012	± 2% of range
Kiln Inlet Shroud (differential) Pressure (reference to SCC)	Rosemount Pressure transducer	0 - 10 in. w.c.	PDT-4305	7/9/2012	± 2% of range
Kiln Outlet Shroud (differential) Pressure (reference to SCC)	Rosemount Pressure transducer	0 - 10 in. w.c.	PDT-4306	7/9/2012	± 2% of range

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Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Kiln Inlet Shroud Pressure (reference to ambient)	Rosemount Pressure transducer	0 - 10 in. w.c.	PT-4307	7/9/2012	± 2% of range
Scrubber 1st Packed Bed Differential Pressure	Rosemount Transmitter /Pressure transducer	0 - 8 in w.c.	PDT-7207	6/6/2012	± 2% of range
Ring Jet Differential Pressure	Rosemount Transmitter/ Pressure	0 - 40 in w.c. (changed 2005)	PDT-7401A PDT-7405A	5/1/2012	± 2% of range
Ring Jet Differential Pressure	Rosemount Transmitter/ Pressure	0 - 40 in w.c. (changed 2005)	PDT-7401B PDT-7405B	4/12/2012	± 2% of range
Sludge 2 Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3100A	7/9/2012	± 5% of range
Sludge 2 Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3100B	7/9/2012	± 5% of range
High Btu Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3113	7/9/2012	± 5% of range
Organic Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3123	7/9/2012	± 5% of range
Sludge Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3133	7/9/2012	± 5% of range
Aqueous Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3143	7/9/2012	± 5% of range
Slurry Lance Atomizing Pressure	Generic pressure switch	0 - 50 psi	PSL-3153	7/9/2012	± 5% of range
Kiln / Secondary Combustion Chamber Pressure	Rosemount Transmitter / Pressure transducer	-3.5 - +2.5 in. w.c.	PT-4300A	WFCO Test done every 3 weeks	± 2% of range
Kiln / Secondary Combustion Chamber Pressure	Rosemount Transmitter / Pressure transducer	-3.5 - +2.5 in. w.c.	PT-4300B	WFCO Test done every 3 weeks	± 2% of range

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Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Spray Dryer Carbon Carrier Fluid Pressure	Rosemount Transmitter / Pressure	0 – 15 psi	PT-5732	7/9/2012	± 2% of range
Scrubber Carbon Carrier Fluid Pressure	Rosemount Transmitter / Pressure	0 – 15 psi	PT-7132	7/9/2012	± 2% of range
ESP Inlet Temperature	Rosemount Transmitter / Thermocouple	0 - 600 °F	TT-6002A	WFCO Test done every 3 weeks	± 2% of range
ESP Inlet Temperature	Rosemount Transmitter / Thermocouple	0 - 600 °F	TT-6002B	WFCO Test done every 3 weeks	± 2% of range
Kiln Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4300A	2/9/2012	± 1% of range
Kiln Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4300B	6/12/2012	± 1% of range
Secondary Combustion Chamber Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4310A	11/17/2011	± 1% of range
Secondary Combustion Chamber Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4310B	2/9/2012	± 1% of range
Pumpable Feed Rate Direct Drum Scale A	Generic Load Cell (Loss in weight calculation)	0 – 5,000 lb	WT-3050	3/10/2012	± 3% of range
Pumpable Feeds Direct Drum Scale B	Generic Load Cell (Loss in weight calculation)	0 – 5,000 lb	WT-3055	3/10/2012	± 3% of range
Pumpable Feeds Tanker Scale A (South Bay)	Generic Load Cell. Loss in weight calculation	0 – 80,000 lb	WT-3060	5/12/2012	± 3% of range
Pumpable Feeds Tanker Scale B (East Bay)	Generic Load Cell. Loss in weight calculation	0 – 100,000 lb	WT-3065	4/14/2012	± 3% of range
Conveyor Scale Drum Processing	Generic Load Cell (Scale)	0 – 2,000 lb	WT-3070 ARTS Data	5/12/2012	± 3% of range

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Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Splitting Scale Drum Processing	Generic Load Cell (Scale)	0 – 5,000 lb	WT-3075 ARTS Data	5/12/2012	± 3% of range
Floor Scale Drum Processing Lab Pack	Generic Load Cell (Scale)	0 – 2,000 lb	WT-3080 ARTS Data	5/12/2012	± 3% of range
Kiln Bulk Feed Crane	Generic Load Cell (Scale)	0 – 10,000 lb	WT-3105	3/10/2012	± 3% of range
Scrubber Carbon Feed Rate	Generic Load Cell / Loss in Weight Feeder	0 – 50 lb/hr	WT-7002	5/12/2012	± 1% of range
Spray Dryer Carbon Feed Rate	Generic Load Cell / Loss in Weight Feeder	0 – 50 lb/hr	WT-7003	5/12/2012	± 1% of range
Total Hydrocarbon Analyzer (Stack)	California Analytical Instruments, Inc.	0 – 100 ppm 0 – 500 ppm as Propane	AI-7850A	4/19/2012	± 5% of span
Total Hydrocarbon Analyzer (Stack)	California Analytical Instruments, Inc.	0 – 100 ppm 0 – 500 ppm as Propane	AI-7850B	4/19/2012	± 5% of span
Stack Oxygen Analyzers (dry)	Ametek	0 – 25 %	AI-7860A	4/19/2012	± 1.0% Oxygen
Stack Oxygen Analyzers (dry)	Ametek	0 – 25 %	AI-7860B	4/19/2012	± 1.0% Oxygen
Stack Oxygen Analyzers (wet)	Ametek	0 – 25 %	AI-7865A	4/19/2012	± 1.0% Oxygen
Stack Oxygen Analyzers (wet)	Ametek	0 – 25 %	AI-7865B	4/19/2012	± 1.0% Oxygen
Flue Gas Flow Rate (Scrubber Outlet)	Calculation Stack - Reheat Flow	0 – 80,000 scfm	FT-7510A	4/19/2012	< 15% relative accuracy or < 7.5% of the applicable standard
Flue Gas Flow Rate (Scrubber Outlet)	United Sciences UltraSonic Gas Flow	0 – 80,000 scfm	FT-7510B	4/19/2012	< 15% relative accuracy or < 7.5% of the applicable standard

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Flue Gas Flow Rate (Stack)	United Sciences UltraSonic Gas Flow	0 – 100,000 scfm	FT-7805A	4/19/2012	< 15% relative accuracy or < 7.5% of the applicable standard
Flue Gas Flow Rate (Stack)	Calculation Process + Reheat Flow	0 – 100,000 scfm	FT-7805B	4/19/2012	< 15% relative accuracy or < 7.5% of the applicable standard

### C. Emission Data Summary

Complete the following emission data summary table for each affected source:  
(63.10(e)(3)(vi)(I))

Total duration of excess emission / parameter exceedances (minutes for opacity, hours for gases)

Excess Emissions	Total Duration(min)	Total Operating time of affected source during the reporting period (min)	% Of total source operating time during which excess emissions occurred
Maximum Ash Feed Rate (WQI-9000AH)	0	250,357	0.00%
Maximum Process Gas Flowrate (FI-7510A/B)	0	250,357	0.00%
Maximum Pumpable Waste Feed Rate (WQI-9000T)	0	250,357	0.00%
Maximum SCC Pressure (PI-4300A/B)	14.52	250,357	0.01%
Maximum Temperature at ESP Inlet (TI-6002A/B)	7.97	250,357	0.00%
Maximum Total Chlorine Feed Rate (WQI-9000CL)	0	250,357	0.00%
Maximum Total Low Volatile Metals Feed Rate (WQI-9000LV)	0	250,357	0.00%
Maximum Total Mercury Feed Rate (WQI-9000M)	0	250,357	0.00%
Maximum Total Pumpable Low Volatile Metals Feed Rate (WQI-9000PLV)	0	250,357	0.00%
Maximum Total Semi volatile Metals Feed Rate (WQI-9000SV)	0	250,357	0.00%
Maximum Total Waste Feed Rate (WQI-9000F)	0	250,357	0.00%

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Excess Emissions	Total Duration (min)	Total Operating time of affected source during the reporting period (min)	% Of total source operating time during which excess emissions occurred
Minimum Feed Lance Atomization Pressure	0	250,357	0.00%
Minimum Kiln Temperature (TI-4300A/B)	322.63	250,357	0.13%
Minimum Loc. 1 Carbon Feed Pressure (PI-5732)	184.3	250,357	0.07%
Minimum Loc. 2 Carbon Feed Pressure (PI-7132)	75.33	250,357	0.03%
Minimum Loc. 1 Carbon Feed Rate (WI-7003)	258.83	250,357	0.10%
Minimum Loc. 2 Carbon Feed Rate (WI-7002)	251.8	250,357	0.10%
Minimum Ring Jet Pressure Drop (DPI-7401)	1562.98	250,357	0.62%
Minimum SCC Temperature (TI-4310A/B)	400.72	250,357	0.16%
Minimum Scrubber (1 <sup>st</sup> and 2 <sup>nd</sup> Packed Bed) Pressure Drop	0	250,357	0.00%
Minimum Scrubber (1 <sup>st</sup> and 2 <sup>nd</sup> Packed Bed, combined) Liquid Flow Rate (FQI-7201)	286.83	250,357	0.11%
Minimum Scrubber (3 <sup>rd</sup> Stage) Liquid pH (AI-7307A/B)	0	250,357	0.00%
Minimum Scrubber (Ring Jet) Blowdown (FI-7403)	336.02	250,357	0.13%
Minimum Scrubber (Ring Jet) Liquid Flow Rate (FI-7404A/B)	245.97	250,357	0.10%
Minimum Scrubber (Ring Jet) Tank Level (LIC-7401)	0	250,357	0.00%
THC	2110.83	250,357	0.84%
ESP Controls	0	250,357	0.00%
Total Duration	6058.73	250,357	2.42%

Summary of causes of excess emissions / parameter exceedances (% of total duration by cause):

TYPE	Sum Of Duration	% of Total Duration
Startup/shutdown	0	0.00%
Control Equipment Problems	4010.33	66.19%
Process Problems	534.35	8.82%
Other unknown causes	1478.07	24.40%
Other known causes	35.97	0.59%
	6058.72	100.00%

#### D. CMS Performance Summary

Complete the following CMS performance summary table for each affected source:  
(63.10(e)(3)(vi)(J))

Total duration of CMS downtime <sup>1</sup>
0 minutes

Total operating time of affected source during the reporting period
250,357 min

Percent of total source operating time during which CMS were down
0.00 %

<sup>1</sup> Heritage-WTI, Inc. maintains redundant CMS equipment in most cases to prevent CMS downtime. There were no periods during this time that this redundancy did not prevent CMS downtime.

Summary of causes of CMS downtime (percent of downtime by cause)	
Monitoring equipment malfunctions	0
Non-monitoring equipment malfunctions	0
Quality assurance / quality control calibrations	0
Other known causes	0
Other unknown causes	0

**E. CMS, Process, or Control Changes**

1. Have you made any changes in CMS, processes, or controls since the last reporting period?  
☐ Yes      ☒ No      (if no, end of form) (63.10(2)(3)(vi)(K))
2. If you answered yes, please describe the changes below:

**END OF REPORT**